

**STATE OF ARIZONA  
TEMPORARY AQUIFER PROTECTION PERMIT NO. P-100799  
PLACE ID 1103, LTF 95440**

**1.0 AUTHORIZATION**

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2, and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A.A.C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, the Arizona Department of Environmental Quality (ADEQ) hereby authorizes City of Yuma to operate the City of Yuma Water Pollution Control Facility Pilot Project located at 289 N Figueroa Avenue, Yuma, AZ 84364, in Yuma County, over the groundwater basin in Township 16 S, Range 22 E, Section 28 of the San Bernardino Base Line and Meridian, California.

This Temporary Individual Aquifer Protection Permit (Temporary APP) becomes effective on the date of the Water Quality Deputy Division Director's signature (Effective Date) and shall be valid for one **(1) year** and may be renewed for one (1) additional year pursuant to A.A.C. R18-9-A210 (E), unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities for the pilot project authorized under A.A.C. R18-9-A210:

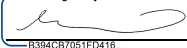
1. Following all the conditions of APP P-100799 (Existing APP), and this Temporary APP, including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point of compliance (POC) set forth below, or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant, and as determined at the applicable POC, occurs as a result of the discharge from the facility.

**1.1. PERMITTEE INFORMATION**

**Facility Name:** City of Yuma Water Pollution Control Facility (Pilot Project)  
**Facility Address:** 289 N Figueroa Avenue, Yuma, AZ 85364  
  
**County:** Yuma County  
  
**Permitted Flow Rate:** Per conditions for Existing APP (P-100799 / LTF 37075)  
  
**Permittee:** City of Yuma  
**Permittee Address:** 155 West 14th Street, Yuma, AZ 85364-4711  
  
**Facility Contact:** Greg Stack, Assistant Director of Utilities  
**Emergency Phone No.:** (928) 373 - 4616  
  
**Latitude/Longitude:** 32° 43' 48" N / 114° 39' 52" W  
**Legal Description:** Township 16S, Range 22E, Section 28 of the San Bernardino Baseline and Meridian, California

**1.2. AUTHORIZING SIGNATURE**

DocuSigned by:



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**Randall Matas, Deputy Director**  
Water Quality Division  
Arizona Department of Environmental Quality

Signed this 5 day of September, 2023

**THIS IS A TEMPORARY PERMIT AND SHALL COINCIDE WITH P-100799 / LTF 37075**

## **2.0 SPECIFIC CONDITIONS**

[A.R.S. §§ 49-203(4), 49-241(A)]

### **2.1. PILOT PROJECT DESCRIPTION**

[A.R.S. § 49-243(K)(8), and A.A.C. R18-5-114]

The permittee is currently authorized to operate the City of Yuma Water Pollution Control Facility (WWTP) under Aquifer Protection Permit (APP) No. P100799 / LTF No. 37075 (Existing APP). This Temporary APP allows for a pilot project to occur as a result of a contingency plan response to a potential exceedance of a nitrate+nitrite parameter.

The permittee is attempting to reduce nitrogen levels using a Denitrification System described below:

1. A recirculation system will be installed that emulates an IMLR pump in a typical Biological Nutrient Removal (BNR) System
2. The location of the pump will be at the end of the aeration basin train
3. A 7.5 HP submersible pump and associated piping will return flows between 800 - 1300 GPM to the anoxic section of the aeration basin at the beginning of the aeration basin train (Zone 5C to the bottom of Zone 1)
4. The recirculation flow in item 3 will be continuous, regardless of aeration basin flow
5. The pilot project will attempt to reduce the concentration of nitrate / nitrite by recirculating flow into the anaerobic / anoxic zone
6. The goal is to reduce the nitrate / nitrite level to less than 5ppm within 6 months in the effluent of Final Clarifier #3 within 6 months of commencement of the pilot project
7. Note that a denitrification system is not covered under the Existing Permit because a permit amendment would have been required per R18-9-A211(D)(2)(a) to change a construction requirement, treatment method, or operational practice.

If the pilot project will exceed the term of this Temporary APP, a request for a one-time 1-year renewal shall be submitted to ADEQ for review and approval. To request renewal of the Temporary APP, the attached Temporary APP renewal form shall be submitted. A Temporary APP renewal request form shall be submitted at least 60 days prior to the expiration of the Temporary APP.

If the permittee wishes to retain the additional equipment authorized under this Temporary APP, an application for an "Other" amendment to the Existing APP shall be submitted to the Groundwater Protection Section per A.A.C. R18-9-A211. The "Other" amendment application shall contain a design report and engineering plans sealed by an Arizona licensed professional engineer in order for the permittee to implement BADCT results observed during the pilot project. If the "Other" amendment has not been issued prior to the expiration of the Temporary APP, the pilot project shall end and the additional equipment shall be removed or otherwise disabled prior to the expiration of the Temporary APP. If the permittee does not wish to retain the additional equipment from this Temporary APP, the permittee shall notify ADEQ and remove the additional equipment.

## **2.2. MONITORING REQUIREMENTS**

[A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

Unless otherwise specified in this permit, all monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. Unless otherwise provided, monitoring shall commence the first full monitoring period following permit issuance. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and Chain-of-Custody procedures shall be followed, in accordance with currently accepted standards of professional practice. Copies of laboratory analyses and Chain-of-Custody forms shall be maintained at the permitted facility. Upon request, these documents shall be made immediately available for review by ADEQ personnel.

### 2.2.1. Routine Discharge Monitoring

The permittee shall implement the following approved monitoring plan for the during the duration of the pilot project.

1. Nitrate monitoring every 2 hours in the anoxic zone
2. Ammonia monitoring every 4 hours in clarifier #3
3. Internal Mixed Liquor Return Parameters
  - a. Pump Status (On / Off)
  - b. Flow rate
  - c. Dissolved Oxygen in the Anoxic Zone
  - d. Variable Flow Rate Valve Position

The monitoring results shall be available upon request during inspections by ADEQ personnel.

### 2.2.2. Operational Monitoring

Any spills resulting from the pilot project shall be managed using an earthen berm that shall direct spilled flow back into the Aeration Basin liquid process. A workstation motion detection camera shall be put in place that will be monitored by the facility operator, who shall also conduct in-person monitoring inspections of the pilot project equipment every two hours. Inspections will also include a tour of Aeration Basin #3. A log of operator rounds and observations shall be maintained.

In addition to the operational monitoring requirements defined in Table III of the Existing APP, the applicant shall also monitor for the parameters listed in the Table III addendum below for the duration of the pilot project.

EXISTING APP TABLE III ADDENDUM		
Pollution Control Structures/Parameters	Performance Levels	Inspection Frequency
Pilot Project Piping	No visible leaks, restraints functional, valves functional	Every two hours
Pilot Project 7.5HP Pump	Good working condition	
Pilot Project Meters and Sensors	Good working condition	
Motion Detection Camera	Camera functional, and pilot project piping items above	Continuous

### 2.2.3. Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state-approved methods. If no state-approved method exists, then any appropriate EPA-approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. If all methods have detection limits higher than the applicable limit, the permittee shall follow the applicable contingency requirements of Section 2.6 and may propose “other actions” including amending the permit to set higher limits. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification unless exempted under A.R.S. 36-495.02. For results to be considered valid, all analytical work shall meet

quality control standards specified in the approved methods. A list of state-certified laboratories in Arizona can be obtained at the address below:

Arizona Department of Health Services  
Office of Laboratory Licensure and Certification  
250 North 17th Avenue  
Phoenix, Arizona 85007  
Phone: (602) 364-0720

## **2.3. CONTINGENCY PLAN REQUIREMENTS**

[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

### **2.3.1. General Contingency Plan Requirements**

The permittee shall follow the contingency and emergency response plan for the Existing APP, and the Internal Mixed Liquor Return Plan for Basin #3 submitted with the Temporary APP application.

### **2.3.2. Discharge Limit Violation**

The permittee shall follow the discharge limit violation requirements of the existing APP; however, with regard to nitrogen parameters, this pilot project shall be considered to meet all discharge limit violation investigation requirements since the pilot project is being undertaken as part of a contingency plan response to an exceedance of a nitrogen parameter in the associated AZPDES permit.

## **2.4. REPORTING, AND RECORDKEEPING REQUIREMENTS**

[A.R.S. § 49-243(K)(2), A.A.C. R18-5-104, R18-9-A206(B), and R18-9-A207]

The permittee shall submit notices, compliance schedule items, or other communications to the Groundwater Protection Section at [groundwaterpermits@azdeq.gov](mailto:groundwaterpermits@azdeq.gov) or the address listed below.

The Arizona Department of Environmental Quality  
Groundwater Protection Section  
Mail Code 5415B-3  
1110 West Washington Street  
Phoenix, Arizona 85007  
Phone (602) 771-4999

### 3.0 COMPLIANCE SCHEDULE

[A.R.S. § 49-243(K) (5) and A.A.C. R18-9-A208]

Unless otherwise indicated, for each compliance schedule item listed below, the permittee shall submit the required information to the Groundwater Protection Section per Section 2.4.

Table 1: COMPLIANCE SCHEDULE ITEMS			
No.	Description	Due By:	Permit Amendment Required?
1	If the pilot project is expected to exceed the term of the Temporary APP, a 1-year renewal request shall be submitted to ADEQ for review and approval. To request a 1-year Temporary APP renewal, the attached Temporary APP renewal form shall be submitted if the pilot project will extend beyond 1 year from the Effective Date of the Temporary APP. A Temporary APP renewal request form shall be submitted at least 60 days prior to the expiration of the Temporary APP. If the pilot project requires a design change, an ADEQ Temporary Individual APP Application shall be submitted with the renewal request.	Submit renewal request at least 60 days prior to the expiration of the term of the Temporary APP	No
2	Submit a notice that pilot project has ended and that the additional equipment was removed or otherwise disabled at the end of the pilot project.	Submit notice with within 15 days of the end of the pilot project	No
3	If the "Other" amendment required to add the additional equipment from Temporary APP to the Existing APP cannot be issued prior to the expiration of the Temporary APP, the additional equipment shall notify ADEQ that the additional equipment has been removed or otherwise disabled prior to the expiration of the Temporary APP.	Submit notification of additional equipment removal or disabling to the Groundwater Protection Section prior to the expiration of the Temporary APP	No

### 4.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

APP Application, dated: 01/12/2023

APP P-100799, dated: 7/7/2006

## 5.0 NOTIFICATION PROVISIONS

### 5.1. Permit Action: Amendment, Transfer, Suspension, and Revocation

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The Department reserves the right to amend, suspend, or revoke this Temporary APP under the rules of the Department. The permittee shall notify the Groundwater Protection Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules. Further, the Department reserves the right to take additional actions as appropriate and as allowed by law.

### 5.1. Duty to Provide Information

[A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

### 5.2. Compliance with Aquifer Water Quality Standards

[A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an Aquifer Water Quality Standard (AWQS) at the applicable point of compliance (POC) for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an AWQS for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

### 5.3. Reporting of Bankruptcy or Environmental Enforcement

[A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. the filing of bankruptcy by the permittee; or
2. the entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

### 5.4. Monitoring and Records

[A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

### 5.5. Inspection and Entry

[A.R.S. §§ 49-1009, 49-203(B), and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

**5.6. Duty to Modify**

[A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

**5.7. Permit Action: Amendment, Transfer, Suspension, and Revocation**

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, suspended, or revoked for cause, under the rules of the Department. The permittee shall notify the Groundwater Protection Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

**6.0 ADDITIONAL PERMIT CONDITIONS**

**6.1. Existing Permit**

All conditions of the Existing APP shall remain in effect during the term of the Temporary APP and shall remain in effect after expiration of the Temporary APP.

**6.2. Other Information**

[A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

**6.3. Severability**

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

**6.4. Permit Transfer**

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).